

Amendment to the Claims:

Listing of the Claims:

1. (Currently Amended) An improved frequency standard of the type wherein a beam of circularly-polarized light passes through an alkali vapor resonance cell,
the improved frequency standard being characterized in that:

the beam of circularly-polarized light is produced by passing a beam of linearly-polarized light through a circular polarizer, the circular polarizer being rotatable around an axis that is parallel to the beam of light, the circular polarizer includes a linear polarizer and a quarter wave retarder,

whereby the intensity of the circularly-polarized beam is controlled by rotating the circular polarizer

wherein during rotation, an axis of polarization of the linear polarizer and a fast axis of the quarter wave retarder have a fixed orientation to each other,

wherein the linear polarizer and the quarter wave retarder are rotated as a unit.

2. (Original) The improved frequency standard set forth in claim 1 further characterized in that:

the beam of linearly-polarized light is produced by a laser.

3. (Currently Amended) The improved frequency standard set forth in claim 1 further characterized in that:

the beam of linearly-polarized light is produced by a second linear polarizer.

4. – 6. (Canceled)

7. (Currently Amended) The improved frequency standard set forth in claim 6 1 wherein:

during rotation, the linear polarizer and the quarter wave retarder are oriented to each other such that the conversion of light which reaches the quarter wave retarder to circular polarization is maximized.

8. (Original) The improved frequency standard set forth in claim 7 wherein:

the axis of polarization of the linear polarizer and the fast axis of the quarter wave retarder are oriented to each other at an angle of 45°.

9. (Canceled)

10. (Currently Amended) A method employed in a frequency standard of the type wherein a beam of circularly-polarized light passes through an alkali vapor resonance cell to control the intensity of the beam of circularly-polarized light, the circularly-polarized light being produced by passing a linearly polarized beam of light through a circular polarizer, the circular polarizer being rotatable about an axis that is parallel to the beam of light, and

the method comprising the steps of:

rotating the circular polarizer, the circular polarizer including a linear polarizer and a quarter wave retarder,

wherein during rotation, an axis of polarization of the linear polarizer and a fast axis of the quarter wave retarder have a fixed orientation to each other,

wherein the linear polarizer and the quarter wave retarder are rotated as a unit; and

determining the intensity of the beam,
the steps being repeated until a desired intensity has been obtained.

11. (Original) The method set forth in claim 10 further comprising the step of:

preventing further rotation of the circular polarizer after the desired intensity has been obtained.

12. (Original) The method set forth in claim 10 wherein:

the beam of circularly polarized light strikes a device which measures the intensity of the beam; and

the steps of the method are automatically performed in response to changes in the intensity of the beam as measured by the device.